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DATE MAILED: 12/01/2010

NOTICE OF ALLOWANCE AND FEE(S) DUE

55694 7590 1201/2010 DRINKER BIDDLE & REATH (DC) 1500 K STREET, N.W. SUITE 1100 WASHINGTON, DC 20005-1209 EXAMINER
HOLLWEG, THOMAS A
ART UNIT PAPER NUMBER

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/589,602	08/16/2006	Hiroyuki Kyushima	46884-5500	2693		
TITLE OF INVENTION: PHOTOMULTIPLIER AND ITS MANUFACTURING METHOD						

 APPLN. TYPE
 SMALL ENTITY
 ISSUE FREE DUE
 PUBLICATION FREE DUE
 PREV. PAID ISSUE FREE
 TOTAL FREE() DUE
 DATE DUE

 nonprovisional
 NO
 \$1510
 \$300
 \$0
 \$1810
 03/01/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence including ed below or directed of tions.	ng the Patent, nerwise in Blo	advance o	rders and notification a) specifying a new o	of n	naintenance fees w pondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence ate "FEE AD	e address as DRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)					Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.					
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WASHINGTON	N, DC 20005-1209								(Di	epositor's name)
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APPLICATION NO.	NO. FILING DATE			FIRST NAMED INVE		ATTORNEY DOC		RNEY DOCKET NO.	CONFIRMAT	TON NO.
10/589,602	08/16/2006			Hiroyuki Kyushin	na			46884-5500	269	3
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EXAM	IINER	ART U	NIT	CLASS-SUBCLASS	S					
HOLLWEG,	THOMAS A	287)	313-536000						
1. Change of correspond	ence address or indicatio	n of "Fee Adda	ess" (37	2. For printing on the patent front page, list						
Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.										
Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.				(2) the name of a single firm (having as a member a 2-registered attorney or agent) and the names of up to 2-registered patent attorneys or agents. If no name is 3-listed, no name will be principle.						
3. ASSIGNEE NAME A		TO DE DDIN	TED OV							
	less an assignee is ident h in 37 CFR 3.II. Com						ee is id	entified below, the de	cument has b	een filed for
(A) NAME OF ASSI		netion of this I	orm is NO	(B) RESIDENCE: (0						
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Please check the appropr	iate assignee category or	categories (wi	ll not be p	rinted on the patent):	۵	Individual 🚨 Co	orporati	on or other private gro	up entity 🗖	Government
4a. The following fee(s)	are submitted:		4	b. Payment of Fee(s):	(Plea	se first reapply ar	ıy prev	iously paid issue fee	hown above)	
				A check is enclose						
☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies			☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any							
				overpayment, to	Depó	sit Account Numbe	er	(enclose a	extra copy of	this form).
5. Change in Entity Sta	tus (from status indicate is SMALL ENTITY stati		1 27	☐ b. Apolicant is no	o lon	er claiming SMAI	L.EN	TITY status. Sec 37 CF	R 1.27(e)(2)	
NOTE: The Issue Fee an interest as shown by the										ther party in
interest as snown by the	records of the Clined Sta	tes ratent and	Hademan	Conice.						
Authorized Signature			Date							
Typed or printed name			Registration No.							
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55694	7590	12/01/2010		EXAM	UNER	
DRINKER BIL	DLE &	REATH (DC)	HOLLWEG, THOMAS A			
1500 K STREET, N.W.				ART UNIT	PAPER NUMBER	
SUITE 1100 WASHINGTON, DC 20005-1209				2879 DATE MAILED: 12/01/2010		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 566 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 566 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)			
10/589,602	KYUSHIMA ET AL.			
Examiner	Art Unit			
Thomas A. Hollweg	2879			

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-69) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon patition by the applicant. See 27 CEPT 1413 and MEPET 1309.

- of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

 1. ☑ This communication is responsive to the Request for Continued Examination of November 2, 2010.
- 2. The allowed claim(s) is/are 1-3,5,6,9,11,13,15,17 and 23.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) 🔲 including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - The reto or 2) to Paper No./Mail Date ____.

 (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of
 - Paper No./Mail Date ____.

 Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date ______

 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other ___

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

- 1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 2, 2010, has been entered.
- Claims 4 and 10 are canceled. No claims are added. Claims 1-3, 5, 6, 9, 11, 13, 15, 17 and 23 are currently pending.
- The amendments to claims 1 and 23 correcting minor informalities are acknowledged. The objections to claims 1 and 23 are withdrawn.
- The amendments to claim 1 regarding the 35 U.S.C. § 112, second paragraph, rejections are acknowledged. These rejections are withdrawn.

Allowable Subject Matter

- 5. Claims 1-3, 5, 6, 9, 11, 13, 15, 17 and 23 are allowed.
- The following is an examiner's statement of reasons for allowance:
- 7. Regarding amended independent claim 1, the prior art of record does not teach or suggest the photomultiplier described, further comprising a photocathode electrode having one end being in direct contact with said photocathode, and the other end being exposed to the external of said enclosure; a first through hole accommodating said photocathode electrode therein and extending along a direction orthogonal to the flat

Application/Control Number: 10/589,602

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part of said inner wall; wherein said first through hole is provided in any one of said lower and upper frames while being apart from said side wall frame, whereby said photocathode electrode accommodated in said first through hole is electrically separated from said side wall frame, and an anode electrode having the claimed arrangement similar to the claimed arrangement of the photocathode electrode, together with the other claim limitations.

- 8. Claims 2, 3, 5, 6, 9, 11, 13, 15, 17 and 232-5 and 7-15 are allowable due to their dependency.
- 9. Any comments considered necessary by the Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of reasons for Allowance."

Conclusion

- 10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Hollweg whose telephone number is (571) 270-1739. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm E.S.T..
- 11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- Information regarding the status of an application may be obtained from the
 Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Hollweg/ Patent Examiner, Art Unit 2879

/NIMESHKUMAR D. PATEL/ Supervisory Patent Examiner, Art Unit 2879